

AMENDMENTS TO THE CLAIMS

This listing will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-69. (Cancelled)

70. (Previously Presented) A bio-disc for detecting the binding of target-DNA to capture-DNA, comprising:

a substantially circular substrate adapted to transmit an interrogation beam from an optical drive;

a reflective layer associated with said substrate, wherein said reflective layer is adapted to reflect said interrogation beam;

a plurality of target zones disposed in said reflective layer, wherein said target zones permit said interrogation beam to pass through said reflective layer; and

an active layer associated with said reflective layer and said target zones, wherein said active layer comprises immobilized capture-DNA positioned to be contacted by said interrogation beam as it passes through said target zones.

71. (Previously Presented) The bio-disc of Claim 70, further comprising a fluidic circuit associated with said active layer.

72. (Previously Presented) The bio-disc of Claim 71, wherein said fluidic circuit is formed from a membrane associated with said active layer.

73. (Previously Presented) The bio-disc of Claim 72, wherein said membrane is an adhesive membrane.

74. (Previously Presented) The bio-disc of Claim 71, wherein said fluidic circuit comprises a flow channel and a return channel.

75. (Previously Presented) The bio-disc of Claim 74, wherein said flow channel and said return channel form a "U" shape.

76. (Previously Presented) The bio-disc of Claim 71, further comprising a cap portion associated with said active layer, wherein said cap portion provides an inlet port to said fluidic circuit.

77. (Previously Presented) The bio-disc of Claim 76, further comprising a second reflective layer disposed between said active layer and said cap portion.

78. (Currently Amended) A bio-disc for detecting the binding of target-DNA to capture-DNA, comprising:
a substantially circular substrate configured to be read by an optical drive; and
a plurality of flow channels associated with said substrate, wherein said flow channels are divided by a break-away retaining wall configured to break when said bio-disc rotates at a predetermined speed in said optical drive, further comprising DNA immobilized on an active layer associated with said flow channels.
79. (Cancelled)
80. (Previously Presented) The bio-disc of Claim 78, wherein said flow channels are formed from a membrane.
81. (Previously Presented) The bio-disc of Claim 78, further comprising a cap associated with said active layer, wherein said cap comprises inlet ports configured to receive fluid into said flow channels.
82. (Previously Presented) The bio-disc of Claim 78, further comprising:
a reflective layer associated with said substrate, wherein said reflective layer is adapted to reflect said interrogation beam from said optical disk;
a plurality of target zones disposed in said reflective layer, wherein said target zones permit said interrogation beam to pass through said reflective layer to said active layer.